Publisher: Harcourt

Text/Instructional Material Title: Science, 2002

Science		Rating	
Standard	Adequate	Limited	No Evidence
3.1	√		
3.2	✓		
3.3	✓		
3.4	√		
3.5	√		
3.6		✓	
3.7	√		
3.8	✓		
3.9	✓		
3.10	✓		
3.11	✓		
Additional Criteria			
3-AC.1	✓		
3-AC.2	✓		
3-AC.3	✓		
3-AC.4	√		
3-AC.5	✓		

The Virginia Department of Education recommends to the Board of Education:

YES	\checkmark	NO

Publisher: Harcourt Text/Instructional Material Title: Science, 2002

Science Standard	Rating Scale Please indicate the rating for each by check mark (\checkmark) in the appropriate ce		te cell.
	Adequate	Limited	No Evidence
3.1 The student will plan and conduct investigations in which			
a) predictions and observations are made;	✓		
b) objects with similar characteristics are classified into at least two sets and two subsets;	√		
c) questions are developed to formulate hypotheses;	√		
d) volume is measured to the nearest milliliter and liter;	√		
e) length is measured to the nearest centimeter;	√		
f) mass is measured to the nearest gram;	√		
g) data are gathered, charted, and graphed (line plot, picture graph, and bar graph);	✓		
h) temperature is measured to the nearest degree Celsius;	✓		
i) time is measured to the nearest minute;	√		
j) inferences are made and conclusions are drawn; and	√		
k) natural events are sequenced chronologically.	√		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		te cell.
	Adequate	Limited	No Evidence
3.2 The student will investigate and understand simple machines and their uses. Key concepts include			
 a) types of simple machines (lever, screw, pulley, wheel and axle, inclined plane, and wedge); 	√		
b) how simple machines function;	✓		
c) compound machines (scissors, wheelbarrow, and bicycle); and	√		
 d) examples of simple and compound machines found in the school, home, and work environment. 	√		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		h by placing a te cell.
	Adequate Limited No E		
3.3 The student will investigate and understand that objects are made of materials that can be described by their physical properties. Key concepts include			
a) objects are made of one or more materials;	✓		
b) materials are composed of parts that are too small to be seen without magnification; and	√		
c) physical properties remain the same as the material is reduced in size.	✓		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		e cell.
	Adequate Limited No Ev		
3.4 The student will investigate and understand that behavioral and physical			
adaptations allow animals to respond to life needs. Key concepts include			
a) methods of gathering and storing food, finding shelter, defending	✓		
themselves, and rearing young, and			
b) hibernation, migration, camouflage, mimicry, instinct, and learned behavior.	✓		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		h by placing a te cell.
	Adequate Limited No l		
3.5 The student will investigate and understand relationships among organisms in aquatic and terrestrial food chains. Key concepts include			
a) producer, consumer, decomposer;	✓		
b) herbivore, carnivore, omnivore; and	✓		
c) predator and prey.	√		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark () in the appropriate cell.		h by placing a te cell.
	Adequate	Limited	No Evidence
3.6 The student will investigate and understand that environments support a diversity of plants and animals that share limited resources. Key concepts include			
a) water-related environments (pond, marshland, swamp, stream, river, and ocean environments);		√	
b) dry-land environments (desert, grassland, rain forest, and forest environments); and	√		
c) population and community.		✓	
Overall Rating for Standard		√	

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		te cell.
	Adequate	Limited	No Evidence
3.7 The student will investigate and understand the major components of soil, its origin, and importance to plants and animals including humans. Key concepts include			
a) soil provides the support and nutrients necessary for plant growth;	✓		
b) topsoil is a natural product of subsoil and bedrock;	✓		
c) rock, clay, silt, sand, and humus are components of soils; and	✓		
d) soil is a natural resource and should be conserved.	√		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell. Adequate Limited No Evident		
3.8 The student will investigate and understand basic patterns and cycles occurring in nature. Key concepts include	•		
 a) patterns of natural events (day and night, seasonal changes, phases of the moon, and tides); and 	✓		
b) animal and plant life cycles.	√		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		e cell.
	Adequate	Limited	No Evidence
3.9 The student will investigate and understand the water cycle and its relationship to life on Earth. Key concepts include	•		
a) the energy from the sun drives the water cycle;	✓		
b) processes involved in the water cycle (evaporation, condensation, precipitation);	√		
c) water is essential for living things; and	✓		
d) water supply and water conservation.	√		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		te cell.
	Adequate	Limited	No Evidence
3.10 The student will investigate and understand that natural events and human influences can affect the survival of species. Key concepts include			
a) the interdependency of plants and animals;	✓		
b) the effects of human activity on the quality of air, water, and habitat;	✓		
c) the effects of fire, flood, disease, and erosion on organisms; and	✓		
d) conservation and resource renewal.	√		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
3.11 The student will investigate and understand different sources of energy. Key concepts include			
a) the sun's ability to produce light and heat energy;	✓		
b) sources of energy (sunlight, water, wind);	✓		
c) fossil fuels (coal, oil, natural gas) and wood; and	✓		
d) renewable and nonrenewable energy resources.	√		
Overall Rating for Standard	√		

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Additional Criteria	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
1. Safe use of materials and equipment is encouraged.	√		
Overall Rating for Additional Criteria 1	√		
 Materials emphasize the use of effective instructional practices and learning theories. Students are guided through different approaches such as the learning cycle. Students are provided the opportunity to conduct scientific inquiry appropriate for their age, grade, and maturity. Concepts are introduced through concrete experiences. Students are required to use manipulative materials during investigations and activities. Multiple opportunities are provided for students to apply concepts. Learning activities offer opportunities for students to revise their prior knowledge and create new knowledge. Students are encouraged to pose questions and to identify problems, as well as propose multiple solutions and design and conduct tests of inference. Students collect and interpret data through a variety of technologies and draw conclusions based on that data. 			
Overall Rating for Additional Criteria 1	✓		

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Additional Criteria	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell. Adequate Limited No Evidence		
 3. Materials present content in an accurate, unbiased manner, and are based on sound science. • Materials do not contain content errors (omissions of current content, out-of-date content, overgeneralizations, etc.).* • Materials do not contain production errors (misspelled words, word omissions, incorrect answers).* • Diverse groups (racial, ethnic, cultural, linguistic), males and females, people with disabilities, and people of all ages are represented appropriately. • The materials are free of non-scientific explanation. 	rucquate	Emiteu	TVO EVIDENCE
Overall Rating for Additional Criteria 3	✓		

^{*}Please note that the Department of Education does not certify that all inaccuracies and/or grammatical errors have been detected in this instructional item and reported in this correlation profile.

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Additional Criteria	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
 4. Materials promote student assessment as an integral part of the instructional process. Assessment suggestions and scoring criteria for student performances on work such as lab practicals or tasks, concept maps, research projects, observation checklists, etc., are provided. Assessment items include multiple-choice, short answer, essay and openended questions with charts, graphs, and diagrams imbedded within the items. Options include techniques for assessing students' prior knowledge. Assessment items reflect the rigor and the intent of the standards. For example, they require students to use higher order thinking skills to apply, analyze, synthesize, evaluate, and make judgments or recommendations. 			
Overall Rating for Additional Criteria 1	✓		

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Additional Criteria	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
 5. Materials are presented in an organized, logical manner and are appropriate for the age, grade, and maturity of the students. Materials are organized appropriately within and among units of study. Format design includes titles, subheadings, and appropriate cross-referencing for ease of use. Writing style, length of sentences, and vocabulary are appropriate. Graphics and illustrations are appropriate. Level of abstraction is appropriate, and real life examples, including careers are provided. Sufficient applications are provided to promote depth of understanding. 	✓		
Overall Rating for Additional Criteria 5	✓		